

human, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

- (a) providing epithelial tissue from said human;
- (b) culturing said epithelial tissue under conditions in which multipotent stem cells proliferate and in which at least 25% of the cells that are not multipotent stem cells die or attach to the culture substrate; and
- (c) continuing culture step (b) until at least 30% of the cells are multipotent stem cells which are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, or progeny of said multipotent stem cells.

19. **(Twice Amended)** A method of producing a population of at least ten cells, wherein at least 30% of the cells are multipotent stem cells substantially purified from epithelial tissue of a human, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

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- (a) providing epithelial tissue from said human;
 - (b) culturing said epithelial tissue under conditions in which multipotent stem cells proliferate and in which at least 25% of the cells that are not multipotent stem cells die or attach to the culture substrate;
 - (c) separating said multipotent stem cells from said cells that attach to said culture substrate; and
 - (d) repeating steps (b) and (c) until at least 30% of the cells are multipotent stem cells which are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, or progeny of said multipotent stem cells.
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20. **(Reiterated)** The method of claim 19, wherein said population is at least one hundred cells.

43. **(Reiterated)** The method of claim 18 or 19, wherein said epithelial tissue is skin.

44. **(Reiterated)** The method of claim 18 or 19, wherein said epithelial tissue is tongue.

Please add the following new claims:

47. **(NEW)** A method of producing a population of at least ten cells, wherein at least 30% of the cells are multipotent stem cells substantially purified from skin or tongue tissue of a postnatal mammal, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

- (a) providing skin or tongue tissue from said mammal;
- (b) culturing said skin or tongue tissue under conditions in which multipotent stem cells proliferate and in which at least 25% of the cells that are not multipotent stem cells die or attach to the culture substrate; and
- (c) continuing culture step (b) until at least 30% of the cells are multipotent stem cells which are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, or progeny of said multipotent stem cells.

48. **(NEW)** A method of producing a population of at least ten cells, wherein at least 30% of the cells are multipotent stem cells substantially purified from skin or tongue tissue of a postnatal mammal, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

- (a) providing skin or tongue tissue from said mammal;
- (b) culturing said skin or tongue tissue under conditions in which multipotent stem cells proliferate and in which at least 25% of the cells that are not multipotent stem cells die or attach to the culture substrate;
- (c) separating said multipotent stem cells from said cells that attach to said culture substrate; and

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- (d) repeating steps (b) and (c) until at least 30% of the cells are multipotent stem cells which are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, or progeny of said multipotent stem cells
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The amended claims are restated below to reflect changes from the last filing.

18. **(Twice Amended)** A method of producing a population of at least ten cells, wherein at least 30% of the cells are multipotent stem cells substantially purified from epithelial tissue of a ~~postnatal mammal~~ human, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

- (a) providing epithelial tissue from said human ~~mammal~~;
- (b) culturing said epithelial tissue under conditions in which multipotent stem cells proliferate and in which at least 25% of the cells that are not multipotent stem cells die or attach to the culture substrate; and
- (c) continuing culture step (b) until at least 30% of the cells are multipotent stem cells which are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, or progeny of said multipotent stem cells.

19. **(Twice Amended)** A method of producing a population of at least ten cells, wherein at least 30% of the cells are multipotent stem cells substantially purified from epithelial tissue of a ~~postnatal mammal~~ human, or progeny of said multipotent stem cells, wherein said multipotent stem cells are self renewing, form non-adherent clusters, express nestin, and can differentiate into neuronal and mesodermal cell types, said method comprising the steps of:

- (a) providing epithelial tissue from said human ~~mammal~~;